Revenge of the Gamers! World of Warcraft and other online games are honing the skills of tomorrow's business leaders. PAGE 30

COMPUTERWORLD®

Viva Las Vegas!

MGM Mirage's humongous CityCenter rolled the dice on a little-known SaaS project management system. Learn how that bet is paying off.

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Jo Tampas, systems administrator at MGM Mirage, and Mark Bodner, vice president of Tishman Construction Corp.

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MAY 12, 2008
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Inside

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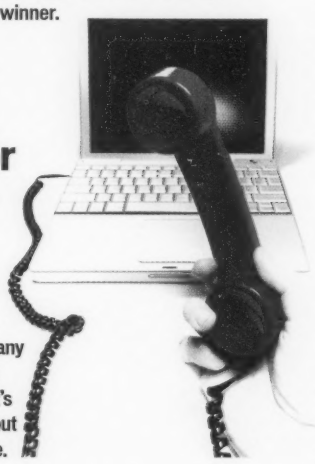

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COVER: PHOTO BY OPULENCE STUDIOS/LEVI ELLYSON

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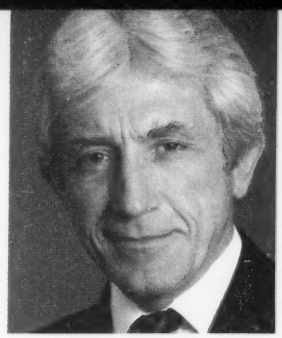
■ EDITOR'S NOTE

Don Tennant

Changing the World



AT AN IT conference in St. Louis a couple of weeks ago, an IBM executive gave a presentation in which she made an intriguing observation about people in their late teens and early twenties.

"They want to change the world," she said. "They're not as much interested in 'I'm going to make a whole lot of money.' Most of them want to make a difference. And we as IT professionals can show them how IT can help them change the world."

Hold that thought.

Four days earlier, a college softball game was under way in Ellensburg, Wash., where the Central Washington University Wildcats were hosting the Western Oregon University Wolves. Western Oregon senior Sara Tucholsky brought her teammates to their feet when, in the top of the second inning, she hit the first home run of her high school and college careers.

When Tucholsky rounded first base, she realized she'd missed the bag, so she turned back to touch it. In the process, she injured her right knee so severely that she collapsed to the ground and was practically unable to move. Since Tucholsky would be called out if any of her teammates touched her, the Western Oregon coach appeared to have no option but to send in a pinch runner, which would nullify the homer and cause the hit to be scored as a single.

That's when Central Washington first baseman Mallory Holtman spoke up. She asked if she and her teammates could help Tucholsky around the bases. The umpires said there was no rule in the books to prohibit it, so Holtman and Central Washington shortstop Liz Wallace picked Tucholsky up and carried her around the bases, enabling her to touch each bag and home plate with her good leg. It was a three-run homer, and Western Oregon went on to win the game, 4-2.

And it wasn't just any game. It was an NCAA Division II playoff game, and Central Washington desperately needed a win after falling two games behind Western Oregon. But that's not what mattered most to Holtman and her teammates. What mattered most to them was that their opponent got the home run she deserved.

■ Young people aren't waiting for us to show them; they're already changing the world.

That's the story that popped into my mind when the IBM executive — Catherine Lasser, vice president of industry solutions and emerging business at IBM Research — spoke of how established professionals can show our young people how to change the world.

I had to smile. The fact is, our young people aren't waiting for us to show them. They have different priorities, different expectations and different values that are already changing the world. It's more helpful to recognize that the generation holding most corporate leadership positions today has a lot to learn from the fresh concepts that are being introduced by the generation that's now entering the workforce. The reason is simple: Those are the concepts that will serve as the truest agents of change.

But Lasser did provide some valuable insights, especially when she spoke of the work IBM is doing to study how popular multiplayer online games like World of Warcraft can help advance the goals of corporate IT.

"What's interesting," Lasser said of the gaming phenomenon, "is that leaders emerge."

I was reminded of that observation when I read Kathleen Melymuka's interview with *Harvard Business Review* author Byron Reeves in this week's print issue (page 30). Reeves, co-founder of a company called Seriosity that develops enterprise software inspired by games like World of Warcraft, spoke about a Seriosity study that was commissioned by IBM. Entirely coincidentally, the findings helped explain Lasser's point.

"The most interesting [conclusion] is that leadership in these games has less to do with the special qualities of the person doing the leading than with the environment itself," Reeves said. "A lot of people can be leaders when there's an environment that's conducive to making it happen."

Perhaps we should just concentrate on providing the right environment and let young leaders like Holtman take it from there. ■

Don Tennant *is editorial director of* Computerworld *and* InfoWorld. *Contact him at don_tennant@computerworld.com, and visit his blog at* http://blogs.computerworld.com/tennant.

■ ONLINE CHATTER

RESPONSES TO:

Agile Reality

April 28, 2008

Is agile programming an approach or a sales pitch? How many consultants are banging on corporate doors offering to teach this latest incarnation of what Cliff Stoll so aptly labeled "Silicon Snake Oil"?

It's a cycle that has been very successful for the consulting industry. Every time the previous iteration of "how to get programming done without actually hiring a programmer" fails, along comes a "new" method, language, automation tool, etc., that will solve all your problems, deliver perfect programs, make your users twice as productive, eliminate those pesky IT guys and double executive bonuses.

■ **Submitted by:** *Jerry Masters*

Some naive assumptions are being made here. The most important is that the customer knows what he needs. All developers know better, and that's why we have elaborate spec writing, contract negotiating, and the rest of the expensive and time-consuming precoding ritual. While you could avoid a lot of up-front delay by adopting a "work it out as you go" relationship between developer and customer, you would relinquish all control over territorial battles, rear-end covering, blame-placing and all of the communication problems within the customer's organization. Non-agile programming has had considerable success at isolating these kinds of problems before coding.

■ **Submitted by:** *rich97*

Just because a customer runs a business doesn't mean he has a business process. A good percentage of businesses survive because employees scribble notes on the forms when the forms themselves aren't sufficient to capture the data. Convert the forms to computerized ones where the employees can't scribble notes, and the computerized system will be rejected as a failure. But where was the actual failure? Both in the lack of functional process and the inability to articulate its deficiencies.

■ **Submitted by:** *Steve Simmons*

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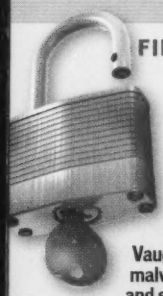

Opinion: Malware vs. Anti-Malware, 20 Years into the Fray

Nearly 20 years after the very first Internet worm, Steven J. Vaughan-Nichols takes stock of the malware/anti-malware landscape and spotlights how the two sides are approaching the battle.

Review: Four Online Databases Let You Structure And Share Your Data

If you want to create a solid relational database that includes the ability to easily share data and collaborate, you might want to try one of these four Web-based database services.

Top How-to Tech Videos That Won't Cost You a Dime

If you watch these videos, you can get tips on everything from enabling wireless security to building a PHP calculator.

Leopard at Six Months: Does It Live Up to the Early Hype?

In the six months since Mac OS X 10.5 Leopard was released, Apple has updated it twice, released numerous code tweaks and bug fixes, and turned an already full-featured operating system into a mature platform, says Michael DeAgonia.

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News Digest

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THE WEEK AHEAD

MONDAY: Digg officials hold the second in an ongoing series of online "town hall" meetings set up to discuss various issues with users of the news aggregation Web site.

TUESDAY: Microsoft plans to release four software updates, three of them rated "critical," as part of its monthly Patch Tuesday batch of security fixes.

THURSDAY: The U.S. Census Bureau is scheduled to issue its report on first-quarter e-commerce sales.

ISTOCK

WIRELESS

Many Hands May Threaten Sprint-Clearwire Venture

SPRINT NEXTEL Corp., Clearwire Corp. and five other firms last week announced plans to create a $14.5 billion joint venture that would develop a national WiMax network.

Sprint had been desperately seeking investors to help fund a multibillion-dollar buildout of its WiMax networks. The company had started building trial WiMax systems in Chicago and Washington earlier this year.

"This has been a complex puzzle to solve," said Sprint CEO Dan Hesse in a conference call announcing the deal. He said Sprint and Clearwire are a "natural fit" and have the ability to create a national footprint of fast WiMax connections.

He added that the partnership could help WiMax technology reach 120 million to 140 million people by the end of 2010.

The joint venture, called Clearwire, includes a combined $3.2 billion in funding from minority stakeholders Intel, Comcast, Time Warner Cable, Google and Bright House Networks.

Sprint will own 51% of the venture and contribute its 2.5-GHz high-speed wireless WiMax network, known as Xohm. Sprint values its contribution at $7.4 billion. Clearwire will supply its WiMax expertise and spectrum, which the companies value at $3.9 billion.

The deal is expected to close in the fourth quarter.

Industry analysts said the number of major companies involved is a danger sign. Such joint efforts in the telecommunications industry are notoriously difficult to manage and often collapse under the weight of the enormous stakes and the egos of the players involved.

"Joint ventures often have too many cooks in the kitchen," said Jack Gold, an analyst at J.Gold Associates LLC. "This one will only work if the Clearwire folks are given autonomy to make the decisions they need to make without undue second-guessing and meddling from the partners."

The new company will be headed by current Clearwire CEO Dan Wolff. The company's founder, wireless pioneer Craig McCaw, will be chairman.

Sprint and Clearwire executives offered few details about the cost or speed of the planned WiMax service, but Wolff said that his company's new network in Portland, Ore., has achieved more than 6Mbit/sec. downlink speeds and more than 2Mbit/sec. uplink speeds.

— Matt Hamblen

HARDWARE

AMD's New Multicore Plan Still Trails Intel's

Advanced Micro Devices Inc. last week announced that it plans to release a six-core chip next year and a 12-core chip in 2010.

The updated road map puts the struggling chip maker about a year behind rival Intel Corp. in the race to ship a six-core chip.

> **"[AMD] needs to pick up the pace. It boils down to being 365 days late and many, many dollars short in terms of margin.**
>
> DAN OLDS, ANALYST, GABRIEL CONSULTING GROUP INC.

The AMD six-core processor, code-named Istanbul, will ship in the second half of 2009, said Randy Allen, general manager of AMD's server and workstation division. Intel plans to release its first six-core chip this year.

"[AMD] needs to pick up the pace," said Dan Olds, an analyst at Gabriel Consulting Group Inc. "It boils down to being 365 days late and many, many dollars short in terms of margin."

– SHARON GAUDIN

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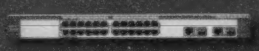

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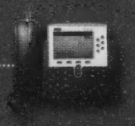

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SOFTWARE

Sun Changes Course on Plan for MySQL Add-ons

OFFICIALS AT Sun Microsystems Inc. said last week that the company is dropping a controversial plan to release some upcoming data-backup features — and potentially their source code — only to paying users of its open-source MySQL database.

But Sun, which bought MySQL AB in February for $1 billion, isn't closing the door on the idea of limiting other database features to paying customers in the future, according to a blog post by Kaj Arnö, vice president of community relations for the MySQL software.

"To financially support MySQL's free and open-source platform, we have a business model which allows both community and commercial add-ons, and we remain committed to it," Arnö wrote. "We believe the model to be useful for both those who spend money to save time, and those who spend time to save money."

Under Sun's original plan, only users with MySQL

ISTOCK

Enterprise contracts would have had access to data encryption and compression add-ons being developed for MySQL 6.0. But when that scheme was disclosed last month, it incited an online revolt among users of the free MySQL Community edition, who greatly outnumber their paying counterparts.

Marten Mickos, MySQL's former CEO and now senior vice president of Sun's database group, announced the change of heart on the add-ons during a panel discussion last Monday at the CommunityOne conference, which was held in San Francisco in conjunction with Sun's JavaOne show.

The decision to back off from the original plan wasn't totally unexpected. In various online posts after the brouhaha erupted, Mickos said that Sun had yet to decide whether it would release the source code for the backup add-ons under a commercial or open-source license.

The core online backup capabilities coming in MySQL 6.0 were scheduled to be made available to both groups of users all along.

Arnö said in his blog post last week that limiting the backup add-ons to MySQL Enterprise users was part of MySQL AB's strategy to boost revenues if it stayed independent and went public. But the restrictions "made less sense" after Sun's acquisition, he added.

Nonetheless, Arnö said that Sun will "continue experimenting" with what it offers to all MySQL users and what it makes available on a commercial basis only. "We want MySQL to be the most popular database for both paying and nonpaying users," he wrote.

— Eric Lai

Short Takes

- Pittsburgh-based IT consultancy iGate Mastech Inc. has agreed to pay $45,000 in fines to settle complaints that it discriminated against U.S. citizens when it placed help-wanted ads seeking H-1B visa holders, according to the U.S. Department of Justice.
- Facebook Inc. has reached an agreement with 49 states and the District of Columbia to implement new safety measures and refine existing ones that protect children against sexual predators.
- Chip makers Intel Corp., Samsung Electronics Co. and Taiwan Semiconductor Manufacturing Co. agreed to collaborate in efforts to ease a move from 300mm wafers to 450mm wafers by 2014. The technology will make it possible to significantly increase chip production.
- Borland Software Corp. has agreed to sell its CodeGear development tools unit to Embarcadero Technologies Inc. for $30 million. The deal is expected to close by June 30.

OPERATING SYSTEMS

XP SP3 Users Face Limits On Removing IE7 From PCs

MICROSOFT CORP. last week warned users who update their PCs to Windows XP Service Pack 3 that they may not be able to downgrade from Internet Explorer 7 to IE6 without first uninstalling SP3.

Jane Maliouta, an IE program manager, said in a blog post that once XP SP3 is installed on a system already running IE7, the option for removing the browser in the Windows control panel will be automatically grayed out.

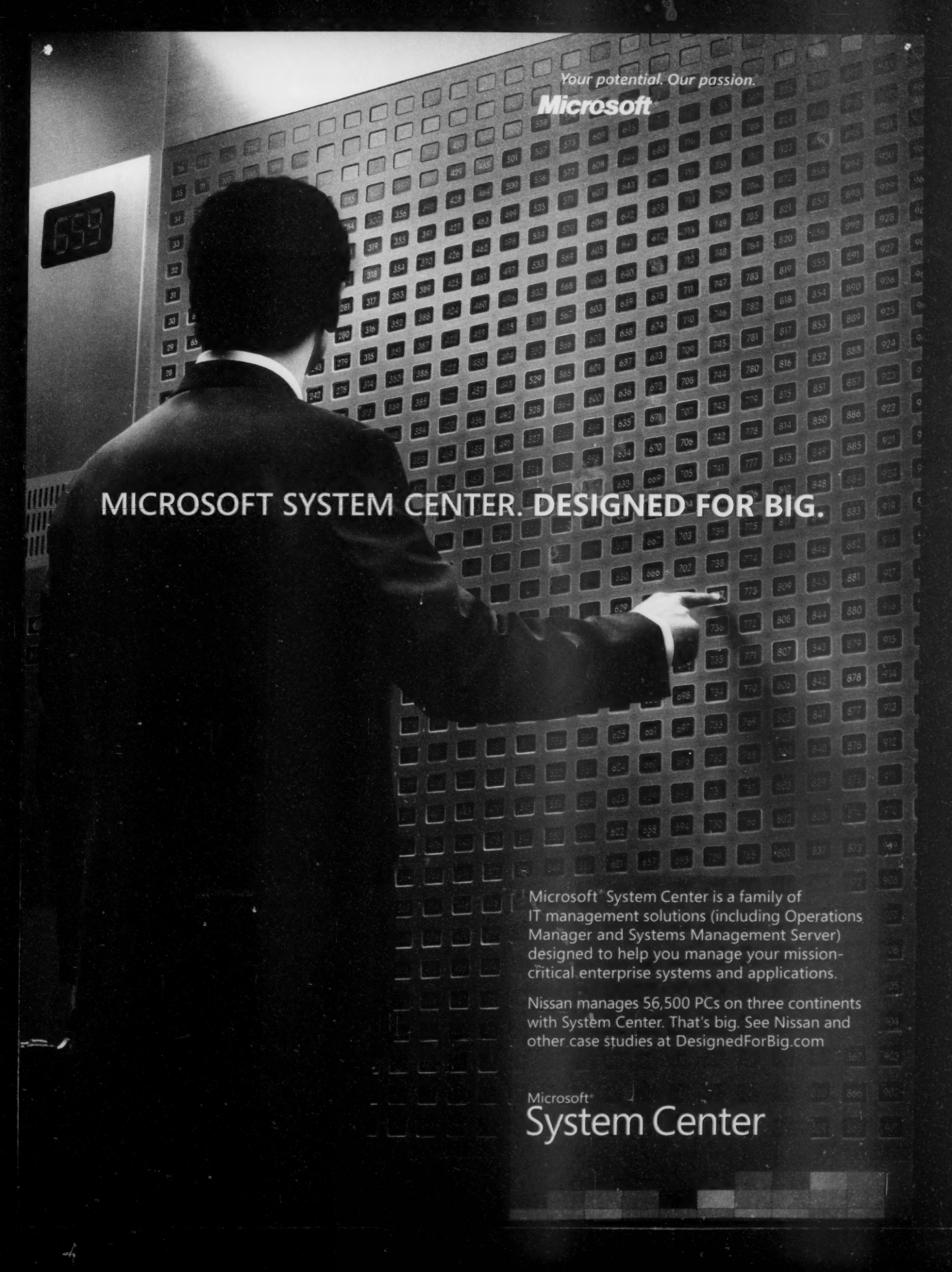
SP3 includes new versions of IE6's files, but removing an existing IE7 installation would revert PCs to a backed-up release of IE6 with pre-SP3 files, Maliouta said. Users would then be left with a "mixed file state" in Windows that is prone to bugs and isn't supported by Microsoft, she added.

For the same reason, users won't be able to uninstall the first beta release of the upcoming IE8 if it's already in place before their PCs are upgraded to XP SP3.

Users who want to retain the ability to remove either IE7 or IE8 Beta 1 should uninstall them before upgrading to SP3, then reinstall the browsers. The mixed-file problem doesn't occur when that is done, Maliouta said.

Microsoft released IE7 in 2006. It was the first major update to Internet Explorer since IE6, which was released in 2001, and it remains Microsoft's most popular browser among businesses. According to Forrester Research Inc., only 30% of corporate users had switched to IE7 by the end of last year.

– GREGG KEIZER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Q&A

Henning Kagermann

Outgoing SAP head says co-CEOs are good fit – outside the U.S.

ORLANDO

SAP AG co-CEO **Henning Kagermann**, *who is entering his last year on the job, took center stage at the company's Sapphire user conference here last week. In an interview with the IDG News Service, he reflected on his career, his successor and the departure of former executive Shai Agassi.*

What kind of advice are you giving your successor, co-CEO Leo Apotheker? I don't give him advice. We're pretty much aligned. The transition — that's why we had a year as co-CEOs. I can hand over responsibilities slowly, and he can get used to it.

Can the co-CEO concept work in the U.S. tech sector, with strong personalities like Larry Ellison and Steve Ballmer? I don't think so. Whenever you speak to CEOs [in] the U.S., they are surprised at what we are doing. For SAP, it's not exceptional. I was co-CEO with [SAP cofounder] Hasso Plattner for five years. People feel it's a more continuous succession. It's not "A new man is coming."

Speaking of strong personalities, has SAP missed Shai Agassi, who was seen as a potential successor before leaving his post as president of SAP's product and technology group in 2007? I cannot say. We have to respect decisions. If you look at the bench strength of SAP, it's pretty large. I always say, "There's nobody who cannot be replaced within SAP."

What do you see as your major accomplishments? We started in 2002 in a very tough environment [and have] come back to double-digit growth and market-share gains. We [have recently acquired Business Objects] — the largest acquisition SAP has ever done.

As I leave, SAP is in a good position to grow into new areas and has a good product portfolio for the next five to 10 years.

—Chris Kanaracus, IDG News Service

BETWEEN THE LINES *By John Klossner*

BENCHMARKS LAST WEEK

Three Hewlett-Packard Co. user groups said they have formally merged into a single organization called Connect. The user groups – Encompass, ITUG and HP-Interex EMEA – announced the merger plan in February.

Sun Microsystems Inc. and the OpenSolaris project officially released the open-source version of Sun's Solaris operating system.

17 YEARS AGO: AT&T Corp. announced that it had agreed to buy NCR Corp. for $7.4 billion. The merger was undone six years later, when NCR was spun off again.

Global Dispatches

Microsoft Builds $280M Campus

BEIJING – Microsoft Corp. last week broke ground on a new research and development campus here and announced that it plans to double its Chinese research staff of 1,500 over an undisclosed period.

The new $280 million (U.S.) Microsoft China R&D Campus will include two buildings equipped with environmentally friendly features, such as solar water heaters and sensors that turn off the lights when a room is not in use, the company said.

The campus is scheduled to be completed in 2010, Microsoft said.

Sumner Lemon,
IDG News Service

Telstra Awarded Australian Pact

CANBERRA, AUSTRALIA – The Australian Department of Defence has awarded a six-year, $162 million Australian ($153 million U.S.) contract to Telstra Corp. for telecommunication services.

Greg Combet, parliamentary secretary for defense procurement, said the contract calls for Melbourne-based Telstra to provide mobile phones and fixed-line voice, fixed-line data and broadband services to agency personnel.

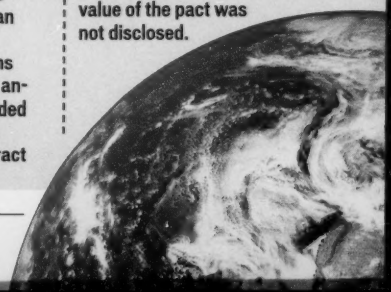
Combet said that outsourcing the services will result in annual savings of more than $13 million Australian ($12.2 million U.S.)

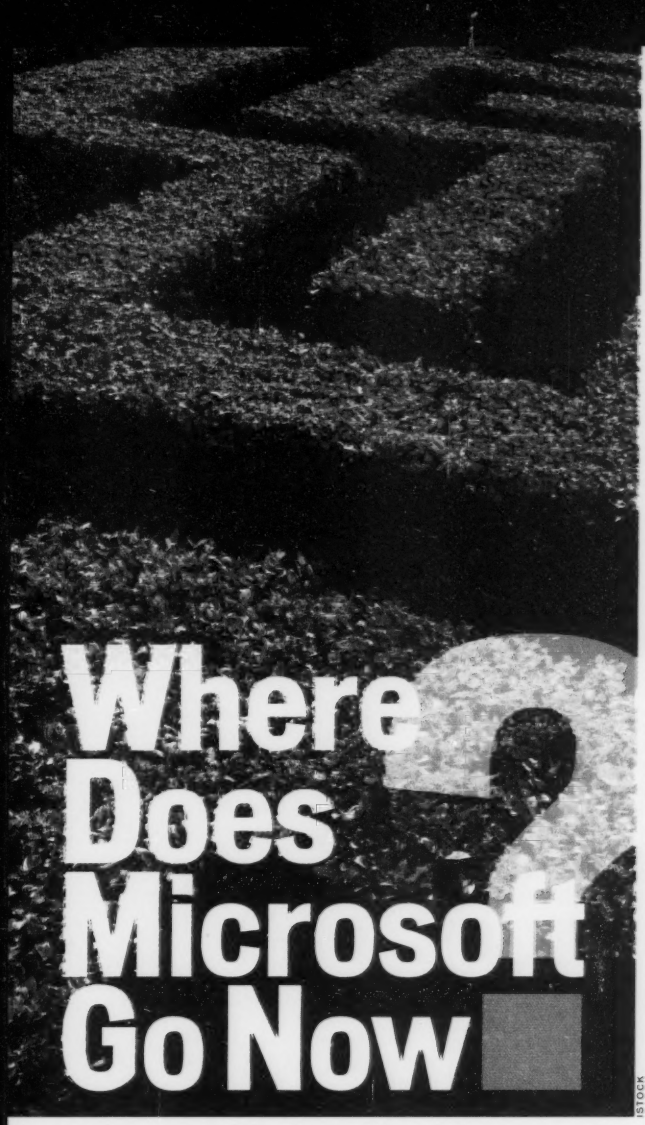
The Australian Customs Service in Canberra also announced that it has awarded a $23 million Australian ($21.6 million U.S.) contract to Telstra unit Kaz Group Pty. to support and maintain its applications. Sydney-based Kaz replaces Plano, Texas-based Electronic Data Systems Corp. as the agency's services provider.

Sandra Rossi,
Computerworld Australia

BRIEFLY NOTED

The Hong Kong Judiciary last week said it has awarded a five-year outsourcing contract to Unisys Corp. Under the contract, Unisys will provide ongoing application support and maintenance, network infrastructure, office automation and other IT services. The value of the pact was not disclosed.





ISTOCK

Where Does Microsoft Go Now?

Microsoft's bid for Yahoo looks like a dead end. But the software vendor has other options.

By Eric Lai and Linda Rosencrance

POOR STEVE BALLMER. Having yanked his offer to buy Yahoo Inc., Microsoft Corp.'s CEO is left to run a $57 billion company that is on track for its annual orgy of profits and continues to dominate several software spheres. And he still gets to decide how — or even if — the company should spend its $26 billion cash hoard.

But these aren't breezy times for Microsoft or its top executive. There is a growing sense outside the company that it needs to make major changes if it wants to continue thriving. For example, analysts at Gartner Inc. claimed last month that Windows is "collapsing" under its own weight. And George Colony, CEO at Forrester Research Inc., said in his blog last week that a wholesale reformation is required at Microsoft.

In particular, Ballmer needs to move quickly to shape Microsoft's strategy for the Web, where, with a few exceptions, it remains a laggard behind Google Inc. and other online rivals.

That may hurt Microsoft's chances with some users, even when its online offerings are technically equal to Google's. For example, the University of the Pacific in Stockton, Calif., recently decided to roll out the Google Apps suite rather than Microsoft's similarly free Live@edu package.

"On paper, Microsoft's and Google's products looked exactly the same," said Rob Henderson, director of cyberinfrastructure at the school. But a poll of the university's 6,000 students showed that a majority preferred Google's technology, Henderson said.

Dana Gardner, an analyst at Interarbor Solutions LLC in Gilford, N.H., said via e-mail that Microsoft "needs to become No. 1 or No. 2 in online consumer and business 'something' before its Office and desktop Windows franchises go into slow-growth and/or maintenance mode."

So, how can Microsoft try to catch up on the Web, now that its bid to buy Yahoo is off the table? There are three main options:

1. Forget about Yahoo and look elsewhere. Abandoning what had become a $47.5 billion cash-and-stock offer for Yahoo showed that Microsoft is belatedly coming to its senses, said Enderle Group analyst Rob Enderle.

One upside of the failed merger attempt, he added in an e-mail, is that it opened up possible opportunities for Microsoft with News Corp. and Time Warner Inc. that may "turn out to be both less risky and more lucrative than [buying] Yahoo would have been."

Under that scenario, News Corp.'s MySpace Inc. social networking unit or Time Warner's AOL LLC subsidiary could become new candidates for acquisition or partnership deals.

Each has some potential appeal for Microsoft: MySpace is essentially the Windows of the casual social networking market, while the *A* in AOL could well stand for *advertising* at this point. AOL's online ad network delivers 3 billion banner ads daily — tops in the U.S., according to market research firm comScore Inc. And AOL's Web properties collectively rank as the fourth most popular in the U.S., behind those of Yahoo, Google and Microsoft.

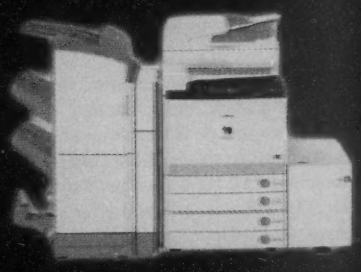
But there are downsides. Time Warner said as part of its first-quarter earnings report that advertising was down year over year on its own Web sites, leading to management changes and an internal reorganization. And a Microsoft acquisition of MySpace — or of Facebook Inc., in which it has a 1.6% stake that cost it $240 million last fall — could alienate the predominantly young social-networking user base.

If Microsoft is fixated on the Web advertising business, other options might

Continued on page 14

IN THE WORLD OF ENTERPRISE INTEGRATION

I need a solution that runs like clockwork or I run the risk of running a lot of stairs.



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NO DEAL
Key developments in Microsoft's now-abandoned bid to buy Yahoo
Yahoo releases a financial plan forecasting overall revenue growth of 26% through 2010.
Yahoo rejects Microsoft's offer, saying the proposed purchase price isn't high enough.
As part of its hunt for alternatives to the Microsoft offer, Yahoo says it will test Google's ad service with its search engine.
Microsoft drops its offer; CEO Jerry Yang says Yahoo can focus on "the most important transition in our history."
FEB. 1
FEB. 11
MARCH 5
MARCH 18
APRIL 5
APRIL 9
APRIL 26
MAY 3
Microsoft offers to acquire Yahoo for $44.6 billion worth of cash and stock.
To discourage Microsoft from trying to replace its board, Yahoo indefinitely extends an internal deadline for nominating directors.
Microsoft CEO Steve Ballmer gives Yahoo three weeks to accept the deal or face a possible proxy fight.
The deadline set by Ballmer passes without any action on Yahoo's part.

Continued from page 11
include Specific Media Inc. or ValueClick Inc. Those two companies operate the largest independent online ad networks in the U.S.

Or, if Microsoft really wants to get into social networking, it could try to entice LinkedIn Corp. to agree to a buyout. The professional networking site has 20 million members, and a deal with Microsoft would likely trigger less user backlash than one between the software vendor and MySpace would. On the other hand, LinkedIn CEO Dan Nye has said that his company is aiming for an initial public offering next year.

2. Focus internally. Microsoft's biggest online weakness is in the core Web-search area. Its Live Search engine is used for just 9% of searches by Internet users in the U.S., leaving it far behind Google's 60% share, according to comScore.

Since no acquisition apart from buying Yahoo would quickly boost Microsoft's search position, "their best priority for now would be to work on innovating around their own search business," said Forrester analyst Shar VanBoskirk. "I'd stay out of the acquisition game for a while and spend my money on my own R&D."

Although that approach has left Microsoft floundering in search, it has worked in other areas. A case in point: Microsoft was rebuffed by federal regulators when it tried to buy Intuit Inc., maker of the Quicken personal finance software, in the mid-1990s. But afterward, Microsoft "steadily improved" its own Money application, said Burton Group analyst Guy Creese.

Of course, Microsoft may need to rethink more than just its search strategy. Forrester's Colony wrote in his blog that Ballmer "dodged a bullet" when he withdrew the Yahoo offer. What's really needed at Microsoft, Colony added, isn't a quick-fix acquisition; instead, the company has to change its culture, software development processes and financial models to become a true online software vendor.

3. Swoop back in and grab Yahoo after all. Microsoft's public walkaway from the proposed deal may end up being a high-risk but successful negotiating tactic.

The fact that Yahoo's stock price was down by less than 10% as of Friday — and that it remained well above the price levels from before Microsoft launched its bid on Feb. 1 — has been attributed partly to investors remaining hopeful about a deal with Microsoft.

Perhaps backtracking a bit, Yahoo CEO Jerry Yang told multiple media outlets that a sale of the company remained a possibility if the price was right. But Creese noted that if Yahoo doesn't meet its financial targets, "Microsoft may be back with a lower offer price." ■

Yahoo Needs Quick Boost; 'Open Strategy' May Help

AFTER MICROSOFT withdrew its offer, Yahoo CEO Jerry Yang said that without "the distraction" of the buyout bid, his company is now free to focus on a strategic makeover designed to boost its online advertising revenue.

But as Yahoo embarks on what Yang described in a statement as "the most important transition in our history," it will likely have to produce tangible results quickly to convince restive shareholders that resisting Microsoft's overtures was the right thing to do.

Yahoo's best chance for success may be its ambitious plan to open all of its Web sites and services to outside application developers, while giving end users a dashboard application for creating profiles similar to the ones offered by Facebook, MySpace and other social networks.

The Yahoo Open Strategy plan, which was launched in-house last September and publicly detailed last month, could give Yahoo the boost it has been seeking for years among Web users, said IDC analyst Karsten Weide. "I wouldn't have used the word 'exciting' with the name 'Yahoo' for a long time, but those are actually quite exciting initiatives," Weide added.

Another possible move for Yahoo is outsourcing the advertising on its search results pages to Google, following a trial run that began in April. But a deal of that type could be challenged on antitrust grounds by regulators or rivals such as Microsoft.

Gartner analyst Allen Weiner said Yahoo has to do something more than just talk about intangibles – pronto. "We're seeing and hearing what I would a call bunch of nice-to-haves and spin," he said. "The problem is that people are really tired of spin, and they want to hear something definitive."

– Linda Rosencrance

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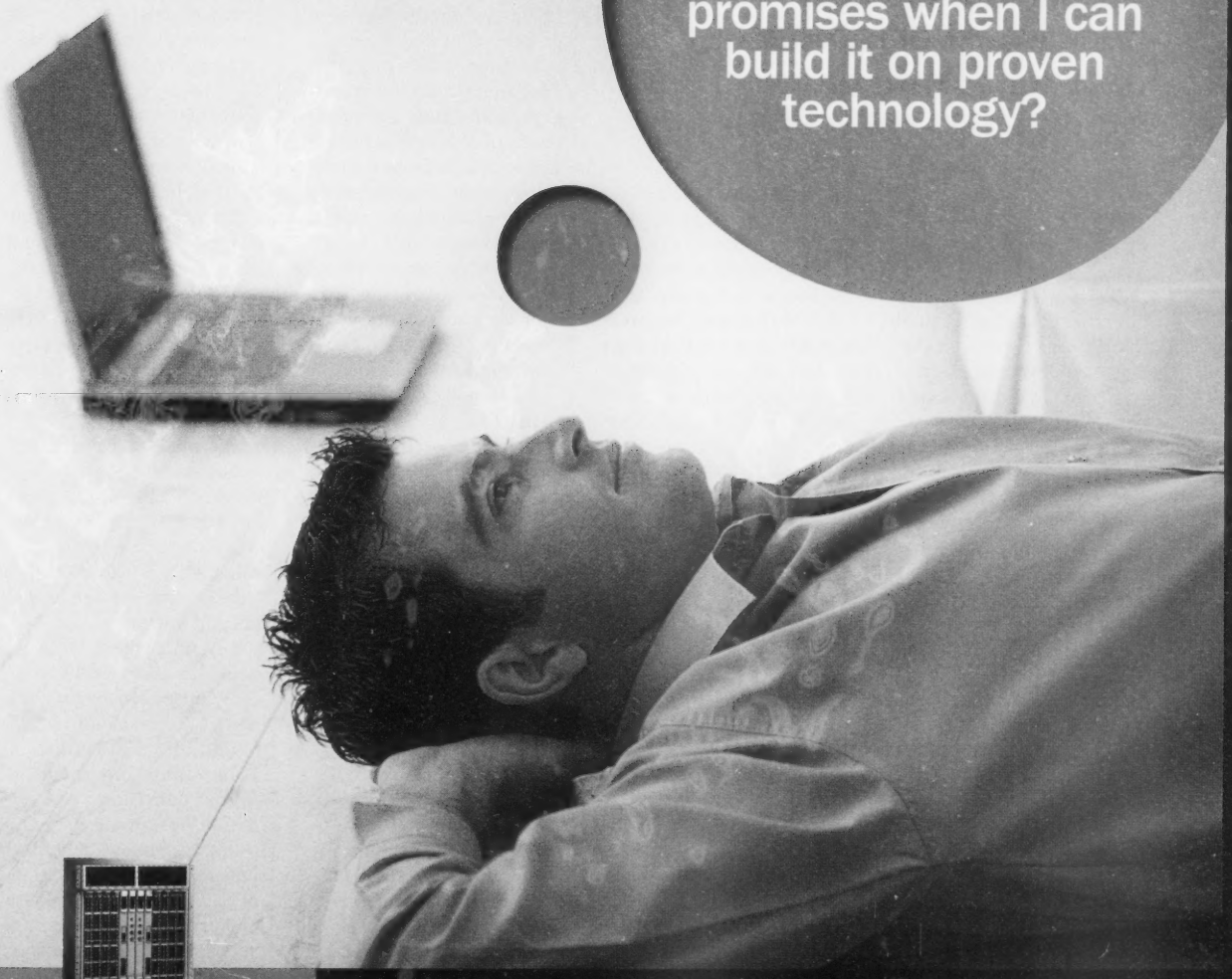
THOUGHTS ON THE
EVOLUTION OF THE DATA CENTER

Why build my data center on promises when I can build it on proven technology?



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BROCADE

Multiple Short Outages Can Add Up to Major Problems

Preparing for major catastrophes is just one piece of IT disaster planning these days.

By Johanna Ambrosio

NEW YORK

CORPORATE executives have long created IT plans to cope with major disasters, but now they're increasingly taking steps to prevent the brief shutdowns that can cost companies hundreds of thousands of dollars or more in their own right.

Users and analysts at IDC's Enterprise Data Center Forum here last week listed several options for quickly recovering from or preventing relatively minor incidents — like user miscues or electricity brownouts — that can shut down systems for an hour to a half-day or so.

Doug Roberts, manager of system services at Hannaford Bros. Co., became aware of the threat posed by seemingly minor incidents about 10 years ago, when his company had a single data center with a diesel generator for backup.

At the time, the Scarborough, Maine-based supermarket chain was focused on preparing for major disasters. "We'd do the big four-and-a-half-day disaster recovery event, planning for a hurricane or whatever," Roberts said. "We'd go to the IBM facility, practice the drill."

Then an incident completely out of Hannaford's control temporarily shut down the data center and the backup generator. At a truck yard across the street, Roberts said, an 18-wheeler "did a U-turn and [accidently] dumped the contents of its fuel tank." The city shut down all power to the area and wouldn't allow Hannaford to use its generator because of the risk of fire.

> **"Because we have better incident and change management [from using ITIL], when something goes down today, we know what happened. And 70% to 80% of the time, it's our service providers and not us.**
>
> **DAVE HOWARD,** NATIONAL MANAGER OF SERVICE MANAGEMENT, TOYOTA FINANCIAL SERVICES CORP.

After that incident, Hannaford installed near-real-time backup systems for its mainframes and key Unix and Windows servers at another data center about seven miles away, as well as at a smaller facility in upstate New York. "It's kind of a poor man's cluster," Roberts said.

In an August 2007 IDC survey of 350 data center professionals, about 37% of the respondents said that their data centers had experienced an outage of some sort. The survey did not ask about the length of outages or when they occurred.

Matthew Eastwood, an IDC analyst, said human error is the most common cause of data center outages. Causes range from mistakenly hitting the emergency power-off button to tripping over a power cord.

The second most common causes of outages are incidents outside of the data center's control, such as what happened at Hannaford.

Eastwood said that data centers can also face problems when cooling and power equipment, which are often overseen by the facilities group, are not in sync with IT requirements.

"Both groups should report into the same organization," or at least they should better coordinate their plans, Eastwood said.

Toyota Financial Services Corp. in Torrance, Calif., found another route to cutting down on short-term data center outages.

Not too long ago, the company had what it considered major incidents — outages of at least an hour — three or four times a week, according to Dave Howard, national manager of service management at Toyota Motor Corp.'s financing arm. The problems included downed networks, enterprisewide application problems, and server or facility outages, he said.

Since the company adopted the Information Technology Infrastructure Library, or ITIL — best practices for managing systems and networks — outages have been cut back to one every three or four months, according to Howard.

"Because we have better incident and change management, when something goes down today, we know what happened," Howard said. "And 70% to 80% of the time, it's our service providers and not us."

Left unchecked, outages could have increasingly dire consequences for businesses, analysts noted.

Consider the fact that, as part of the movement toward data center consolidation and server virtualization, companies are centralizing increasing amounts of equipment in single data centers. "If 60% of your assets are centralized in one data center [and] the data center is down, the business is down, too," said IDC analyst Michelle Bailey.

She said data center managers should use that kind of reasoning to convince wary executives of the potential ROI of new systems that could prevent potential disasters. ■

On the Mark

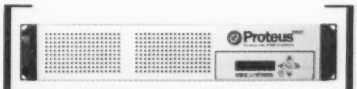
HOT TRENDS ■ NEW PRODUCT NEWS ■ INDUSTRY BUZZ BY MARK HALL

MATTHEW FAULKNER

Herd Those IP Addresses

IP ADDRESSES get handed out in oodles of ways, and they're discontinued all the time. So you'd think there would be no reasonable method for tracking them all.

Not so, claims Branko Miskov. The director of product management at BlueCat Networks Inc. in Toronto says the company's Proteus 2.5 appliance targets exactly that problem. The software update, due to ship in June and starting at $40,000, uses BlueCat's network IP address discovery feature to compare existing addresses to those stored in Proteus. Admins can reclaim addresses that are no longer active for other devices. And, Miskov says, when previously unknown IP addresses are found, the software can determine the rogue unit's MAC address and the physical port it's using.



BlueCat's Proteus appliance helps you manage your multitude of IP addresses.

Among other enhancements, the new release gets workflow processes to ensure adherence to policies for distributing IP addresses. Sounds like stray IP addresses could become a thing of the past.

Virtually Cross-Platform

Microsoft Corp. will add a Performance and Resource Optimization (PRO) module to Virtual Machine Manager 2008, now in beta. VMM, available in Q3, can manage virtual machines based on Microsoft's Hyper-V virtualization hypervisor.

VMM, which is part of Microsoft's System Center management suite, will also be able to handle VMware-based virtual machines, says Dai Vu, Microsoft's director of virtualization products and solutions. VMM uses other System Center tools to keep track of virtual machines under its wing. For example, System Center's Operations Manager will track transactions on a SQL Server database, passing along the information to PRO. That module will compare the data to policies and determine whether it's within acceptable limits. If not, PRO will inform VMM to take action, such as moving the SQL Server virtual machine to another physical server with better performance. Because VMM is cross-platform, it could also execute the same policy for an Oracle database running under VMware, says Vu. System Center with VMM will start at $765 per server.

$0
The amount Microsoft charges for Hyper-V, its virtualization software included with Windows Server 2008.

Beyond FTP

If you want to get a file to someone in a hurry, you attach it to an e-mail message. If it's too big for e-mail, you probably use FTP, available in virtually every operating system. But if you want to manage your file transfers, you need to look elsewhere.

One source to consider is Proginet Corp. in Garden City, N.Y. It's been in the file-transfer business since 1986, and its flagship software, Cyber Fusion Integration, got a slick new feature in Version 6.3. According to Arne Johnson, senior vice president of product management, the CFI attachment manager works as a plug-in to Outlook mail clients and lets senders see who has received and opened a file. You can recall the attachment before anyone opens it or if you change your mind or update the content. If recipients aren't Outlook users, they get a link to the attachment, which can also be rescinded. CFI lets you set policies about file-transfer rights as well. Johnson says regulatory pressure is helping "an old technology become new," because companies don't want to get into trouble over end users sending any files they want anywhere they want via insecure methods.

Johnson: Be wary of FTP and e-mail attachments.

Proginet will release a version of CFI later this year for Notes and BlackBerry users. Pricing starts at around $5,000. ■

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SHARPSHOOTER IMAGING

■ THE GRILL

Paul Major

Aspen Skiing Co.'s CIO talks about **mapping business processes** to renew the spirit, **making pizza** in a pinch and **schussing** on the job.

Dossier

Name: Paul Major

Title: Managing director of IT

Organization: Aspen Skiing Co.

Location: Aspen, Colo.

Most interesting thing people don't know about him: He cooked professionally for four years in a number of high-end restaurants and hotels.

Favorite technology: "Contact lenses are high on the list."

In high school, he was: "A band geek and president of the ski club."

IT philosophy in a nutshell: "You never know how something really works until it breaks."

Ask him to do anything but: "Reformat your hard drive and reinstall Windows."

Last book read: *A Short History of Nearly Everything*, by Bill Bryson

Favorite movie: The original, 1969 version of *The Italian Job* (with Michael Caine and Benny Hill), or *2001: A Space Odyssey*

How do you apply IT to manage your company's operations? I think, as with most companies, IT is central to everything that we're doing. Customer service is critical. Our product is not the kind that you can sell over the Internet. It's not a product that you ship to someone. They have to come and experience it. So it's critical to create an environment. Our mission statement as a company is "We renew the human spirit." And that's a really interesting phrase to take into the IT arena.

So we're looking at our technologies from the standpoint of, "How does this renew the human spirit for our guests? How does this make the skiing experience as convenient as possible?" This is a real hassle-factor type of sport. You've got people relying on transportation, there are weather issues, you've got to get them there, there are hotels involved. Once they're

Continued on page 20

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"There's kind of a powder-day hall-pass rule that our CEO has that we get out and ski.

Continued from page 18

there, we want their experience to be as fantastic as possible.

Think of snow as a product: We make snow, we groom snow, and we put thousands of people out on the snow to serve our guests — ski instructors, rental retail shops, a number of hotels. So all the technologies that we are using are designed to create a great customer experience.

Tell me about a recent project that supports that mission. We've been using a legacy application developed in-house. It's a very effective application from the standpoint of customer service. But it's extremely difficult to sustain it. So we had to go out and actually buy a new system to do what we do.

But rather than thinking about this as pulling off one product and putting another product into play, it's actually been a four-year project — and we haven't even deployed the software yet. Those years have been spent doing business process analysis to figure out what we do as a company — why do we sell lift tickets the way we do? Why does the ski school operate the way it does? Once we were able to sit down with all these departments and literally write a business process plan for every one of these departments asking all the questions about why, then we can take this off-the-shelf product, we can build customization into it, and what we're going to come up with is an off-the-shelf, supportable product that's going to meet all of our needs.

We'd love it if you could go to the chairlift and when we scan your pass, if you've got a five-day pass and you want to go use a sixth day, you never go back to the ticket office. When we scan your pass, we're going to hit your credit card for that incremental cost without you ever having to think about making a purchase decision.

It wasn't possible to architect that with our existing system. But the new technologies we're working with — .Net-based technologies, a lot of Web front end, a lot of wireless technology, making this very mobile — we feel we can offer a real superior product and again give our guests the opportunity to generate revenue for us, but do so in a way that's so convenient for them that it enhances the experience.

How often do you get to ski or snowboard? Not enough. I'm real adamant that my staff goes out and skis. We have 23 food and beverage outlets. A lot of those are on the mountain. We go out and product-test on occasion. There's kind of a powder-day hall-pass rule that our CEO has that we get out and ski. That's our product. And we expect our team to be out and enjoying it so they can see what our guests are enjoying, and they can also look at the way the flow is and understand how our technology might be changed to enhance that.

It sounds like it has helped shape your own role within the company to help identify opportunities for blending IT with the business. I think, in some respects, our IT team probably knows the business even better than some of the folks in the lines of business.

[Our people] work in the rental shops. This year, we've had a shortage of ski instructors. So we asked a lot of our team to go out learn how to teach lessons. Some of them are [Professional Ski Instructors of America] certified instructors. They've actually taken time out from their IT job to teach a private lesson. Not only does it benefit the lines of business, there's a nice play between our team being part of that peak staffing. I made pizzas for an entire day between Christmas and New Year's. So everybody gets out and involves themselves.

It gives you a totally different perspective. It's fun, and you get to realize what we do as a company. Instead of thinking so much about technology, you begin to realize that everything we're doing has to come down to the customer experience and that renewal of the human spirit.

I imagine that you probably don't have a lot of trouble recruiting qualified IT people to work for your company. There are a lot of people who want to come to work for us. The issue is, this a difficult place to move to. Housing is extremely expensive. I have had people just simply not be able to consummate the deal — very qualified people. But generally, people with families and children are just not going to find a place to live in our valley. The housing costs are just exponentially higher than other places.

Salary-wise, we're a very competitive company. But often, it's just not enough to make up that type of difference. So that's been a tremendous obstacle. As a company, we are investing tens of millions of dollars building employee housing in our local community just for that reason. But with some of the other features, like remote workforce and some of the telecommuting possibilities, we've been able to make up for some of those issues.

— *Interview by* **Thomas Hoffman**

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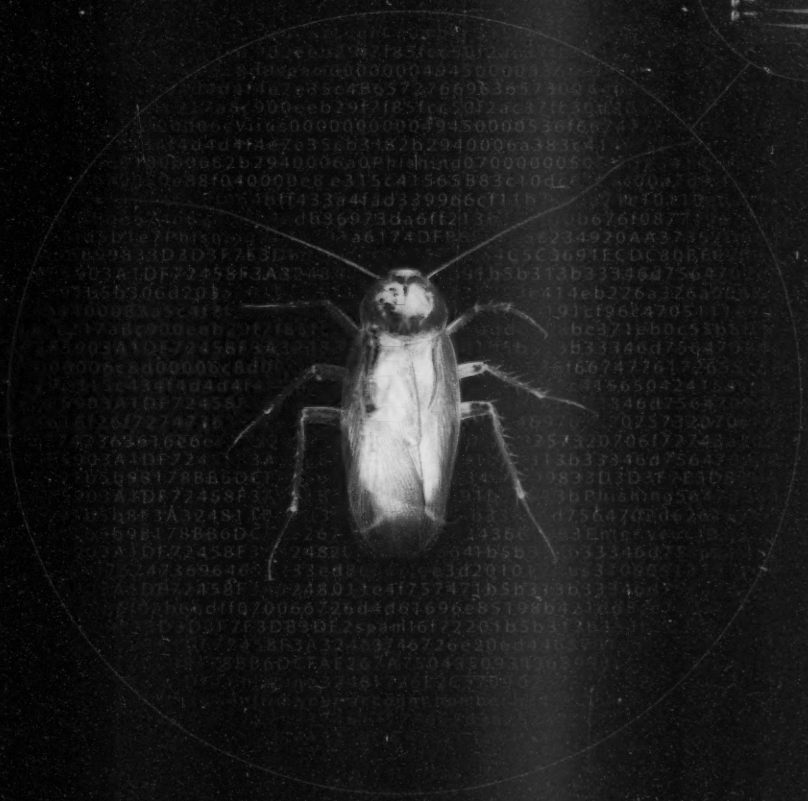
MORE ONLINE
For a video of the extended interview with Paul Major, visit **computerworld.com/more**.

THINK SPAM WILL NEVER DIE? THINK AGAIN.



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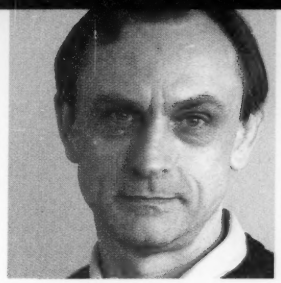
Michael H. Hugos



Say Goodbye to Business Analysts

IS THERE a place for business analysts in IT today? Not if their primary function is just to analyze business needs. As the pace of change accelerates, business people want more than analysis; they want workable solutions to their problems.

Analysis is only part of the job that needs to be done. It can clarify situations and trends, identify problems and make recommendations. But most analysis serves only to educate the business analyst. Business people who live with the situations being analyzed already know 98% of what the analysis will tell them.

There are two other important parts of the job: creativity and synthesis. Analysis is where we determine business needs, specify performance requirements and find out what resources we have to work with. Creativity is where we come up with ideas for combining available resources to create systems that could meet performance requirements. Synthesis is where the best ideas are evaluated and modified until good solutions are found.

A single person who does all three of those things isn't really a business analyst. He or she is a systems designer. And designers are what businesses need today. Increasingly, companies are encountering situations never seen before. Under current conditions, the value of analysis decreases rapidly unless it is combined with creativity and synthesis.

If we overemphasize analysis, we end up relying too heavily on so-called best practices as we try to fit all the situations we encounter into categories that have well-defined answers. This can work for known problems, but not for problems that are new and different. No amount of analysis will ever produce a new idea all by itself.

Systems designers, who combine analysis with creativity and synthesis,

Analysis needs to be combined with creativity and synthesis.

need to understand that just four techniques that have been evolving in the IT profession for several decades are key to the design of information systems. These techniques are group facilitation, process mapping, data modeling and user interface prototyping. They transcend any particular technology or any particular industry, so they are a stable foundation to use for giving structure to the work involved in all three parts of the system design process.

Group facilitation is essential for getting input from everyone who might have relevant information and insights on a business process. As they gather this input, designers use process mapping to create diagrams that capture task sequences for existing and new workflows. And they use data modeling to diagram the structure of the data those workflows operate on.

Then designers use prototypes of user interface screens to illustrate how people can interact with the system to do their jobs.

Since both business and technical people are able to quickly scan and understand these diagrams and screen layouts, those approaches are effective ways to communicate with the diverse groups of people involved in the development of any new system.

The four techniques work equally well to capture and manipulate the information and ideas generated during all three parts of the design process (analysis, creativity and synthesis). So teaching people to use them in appropriate combinations brings order and manageability to the work involved in designing new systems — and the systems that are designed using this method are the ones business people really want.

In today's economy, the most successful companies don't just follow best practices; they set them. For that, you need designers, not analysts. ■

Michael H. Hugos *is a principal at the Center for Systems Innovation and a speaker. A member of the 2006* Computerworld *Premier 100 IT Leader class, his newest book is* The Greatest Innovation Since the Assembly Line *(Meghan-Kiffer Press, 2007). He can be reached at* www.MichaelHugos.com.

Advertisement

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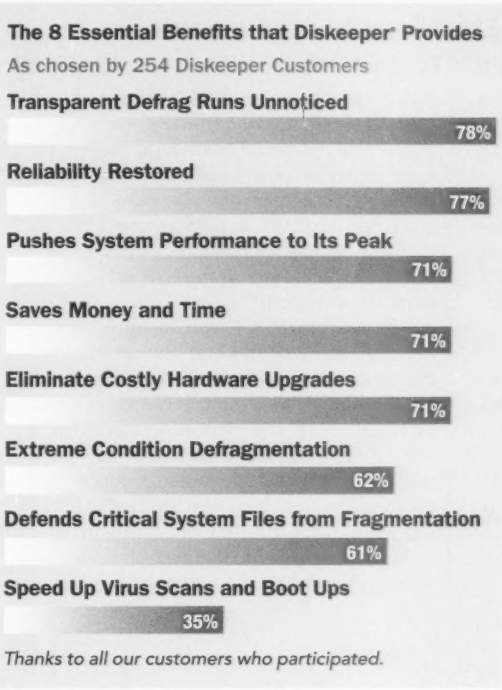

1. PUSHES SYSTEM PERFORMANCE TO ITS PEAK

"We had one machine that had a failing drive in a RAID 5 array and when we replaced that drive, performance improved by 300%. And then when I ran Diskeeper for a week, again it improved over 300%. A disk intensive process that was taking 1.5 hours is now taking 15 minutes."

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"The server automatically defragments only when there are idle resources. No more worrying about when I can schedule defragmentation, no more worrying about if the defragmentation will cause performance issues. InvisiTasking™ has worked great for us on everything from file and print servers to SQL servers."

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"I have been using Diskeeper at my office on the 63 workstations and 4 servers over the last year. The addition of Frag Shield™ 2.0 eliminates the task of manually changing the MFT. In the past most of my MFTs needed adjustment. Now that this function is automatic, I don't have to manually check it."

5. SAVES MONEY AND TIME

"Prior to installing Diskeeper, we were manually defragmenting. Some of the drives would take hours to defrag and within a few days we would need to defrag again. Installing Diskeeper basically paid for itself within a month by reducing off-hour salaries. Also the defragmented drives perform better and last longer. It's a no-brainer for production machines."

6. SPEED UP VIRUS SCANS AND BOOT UPS

"Diskeeper saves time in doing virus scans, backing up, indexing and searching the files. There are also faster download times for users because of the lower load on the defragmented RAID."

7. EXTREME CONDITION DEFRAGMENTATION

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Viva Las

Even in a town where almost nothing is smaller than huge, the joint $8 billion-plus CityCenter venture between MGM Mirage and Dubai World has to be considered grandiose.

The nine-building, 76-acre complex being developed at the heart of the Strip between the Bellagio and Monte Carlo hotels includes a soaring 61-story, 4,000-room hotel-casino and a 500,000-square-foot retail district. Residential units planned at the exclusive Harmon Hotel, Spa & Residences in the complex are setting new price-per-square-foot records for condos sold on the Strip. The sprawling effort employs 7,000 construction workers.

So when CityCenter project leaders had to select a project management system to help monitor what is believed to be the largest private development in U.S. history, they naturally settled on a proven software package that they were sure could support such a massive undertaking, right?

Think again.

Prior to clearing the former Bellagio employee parking lot in 2005 to open up 66 acres for the site (10 adjacent acres from MGM's Monte Carlo site were later added), CityCenter managers had selected project accounting and document management systems to support the effort, says Mark Bodner, a vice president at Tishman Construction Corp., the lead construction manager for the project.

But the four principal players in the project — Tishman, MGM Mirage Design Group, Perini Building Co. (the lead contractor) and Gensler (the lead architect) — still needed construction management software to handle critical change-management and cost-reporting activities. And they wanted a system that was flexible enough to meet the different work styles of the four primary constituents.

"We recognized we were bringing in four different cultures and four different approaches to this kind of project," says Bodner, who is manager of audit and controls for the CityCenter effort.

By August 2005, Bodner and other project leaders were reviewing proposals from four software vendors, including Skire Inc., a little-known company in Menlo Park, Calif., that was pitching a hosted Web-based system.

MGM MIRAGE'S $8 BILLION CITYCENTER ROLLED THE DICE ON A LITTLE-KNOWN

Bodner was impressed with the functionality of Skire's Unifier capital project and program management system. "With Skire's product, there wasn't any preconceived notion about how to do change management and cost reporting," says Bodner, who has 34 years of project management experience. Skire users "can dictate how [they] want this information recorded and reported," he adds.

Other systems the project group evaluated have "great canned reports" but can't be used to create custom reports or forms from scratch, says Jo Tampas, who started out as a Skire consultant and later became a systems administrator in MGM Mirage's IT organization. In contrast, changes to workflows or forms can be done easily in the Skire Unifier system, she says.

Also, says Bodner, none of the other systems could configure workflow processes to meet the project's requirements for reports and data queries.

Bodner says he had one initial concern with Skire. "What I was really looking for was a system that was

MGM Mirage's Jo Tampas (left) and Tishman Construction's Mark Bodner praise Skire Unifier's flexibility and ease of use.

Vegas!

By Thomas Hoffman

ONLINE PROJECT MANAGEMENT SYSTEM. SO FAR, IT LOOKS LIKE A WINNER.

focused on construction management. They were new to the marketplace, and they were actually at a disadvantage because of that," he says.

But Skire's impressive client and project list helped allay that concern. Moreover, Bodner was sold on Unifier's functionality and flexibility. He didn't care whether the system was hosted or based in-house. "Whether or not Skire was an [application service provider] was not a primary driver," he recalls.

But it did matter to other CityCenter stakeholders. Some had concerns about using a hosted project management system from an unknown vendor that would be storing sensitive financial information off-site.

"We were initially reluctant" to consider the Skire system "because the core information would be stored on servers outside our company," says Bill Smith, president of MGM Mirage Design Group.

Such reluctance is not unusual. Many executives object to using hosted project management software, primarily because of connectivity and data security concerns. "Most of my clients like having the software on the premises," says Robert Charette, director of the enterprise risk management service at Cutter Consortium and president of advisory firm Itabhi Corp.

Bodner's push to sell his partners on Skire began with MGM Mirage's IT organization, which he invited to grill Skire executives regarding the company's financial background and security provisions. After Skire completed a 20-page questionnaire, a team

PHOTO BY OPULENCE STUDIOS/LEVI ELLYSON

of MGM Mirage security experts tried unsuccessfully to hack into the hosted system. That exercise, along with supportive references from Skire customers who were using the change-control and cost-reporting functions, helped clinch the deal between the CityCenter project team and Skire in October 2005. (Bodner and MGM Mirage officials declined to quantify the value of the agreement.)

MGM Mirage's IT organization also used an existing firewall and other security systems to help protect the Skire system, Tampas says.

So far, everyone is satisfied. "To date, we have not encountered any problems with off-site storage and have received backups of our data on a regular basis," says Smith.

FROM THE GROUND UP

Getting executives of the four companies to sign off on Skire was just the first hurdle for Bodner and his team. He and other project team members next had to gain buy-in from 30 top executives at the four companies on the configuration of the project flowcharts.

Once the executives agreed to the plans, Tampas created the flowcharts. From March through June 2006, Tampas entered flowcharts into the Unifier system with descriptions for each cost-reporting process being supported, including requests for information and submittals for material costs, she says.

The Unifier system is easy to use "because the user interface is consistent across whatever custom [business processes] are developed for a particular company," says Tampas. With an hour or two of training, users are prepared to enter project data, she adds.

The 350 users of the Skire software include all lines of CityCenter managers from the four companies, including the various cost-controls groups, and MGM Mirage's project accountants and chief financial officer, says Bodner.

The system's flexibility impressed users. Administrators such as Tampas can design workflows and data entry forms from scratch, says Bodner. And project leaders can grant team members access to functionality based on their roles and can "swap people in and out of those roles easily," he says.

The Unifier system went into production in July 2006. In the following weeks, Bodner's team received more than 100 phone calls from users with requests to make minor modifications to the system, "since they knew by then how flexible the system was," he says.

"We recommended to them that we hold off on making any changes until we'd gotten some results from using the system and began producing reports," Bodner adds. Ultimately, some modifications were made, including incorporating additional departments and people into the system, adding fields to the system's forms, and adjusting the workflow as processes were changed or simplified, says Bodner.

Although the members of the CityCenter project group didn't encounter any major technical glitches with the system after they began using it, some functionality issues had to be addressed, says Bodner. For instance, entering construction cost estimates into the system was time-consuming because users had to enter line items one at a time. If a contractor had to enter 60 line items, for example, the process could take more than an hour.

The Unifier product team got moving on the problem, and by October, it had created an enhancement to the system that enabled contractors to enter multiple line items at once.

USE IT OR LOSE

One strength of the system was the audit trail it provided, but for that to be effective, everyone had to be using it. With the support of senior management, Bodner and his team required all contractors to use the Unifier system to submit cost estimates for the CityCenter job. "We told them, 'If it doesn't come through Skire, it doesn't exist,' " says Bodner.

Nearly 100,000 items have been date- and time-stamped so far.

Bodner says there have been a few instances where contractors claimed that their requests to purchase construction materials hadn't been approved by CityCenter project leaders. But because Unifier keeps a complete electronic audit trail of each request and the subsequent action and approval, contractors, project managers, accountants and other stakeholders have no one but themselves to blame if a request isn't in the system.

The system's electronic audit trail has also helped to keep what Bodner refers to as a "hyper, fast-track project" on course. Because Unifier is primarily functioning as a change control and cost-reporting system, the project team has a current and "very explicit" record of project costs, changes and reasons for changes, he says. "Consequently, we have a robust system to proactively control change."

Moreover, he adds, "the system has demonstrated where the organization needs improvement and enabled us to implement these improvements."

Any incremental improvement can go right to the bottom line when you're building on 76 acres of prime Las Vegas Strip real estate valued at $30 million an acre. Shaving even a single day off the deadline would represent a big savings in interest costs alone, Charette says.

Time will tell whether that happens, but so far, the project has remained on schedule. CityCenter is slated to open in November 2009. ■

CityCenter Facts

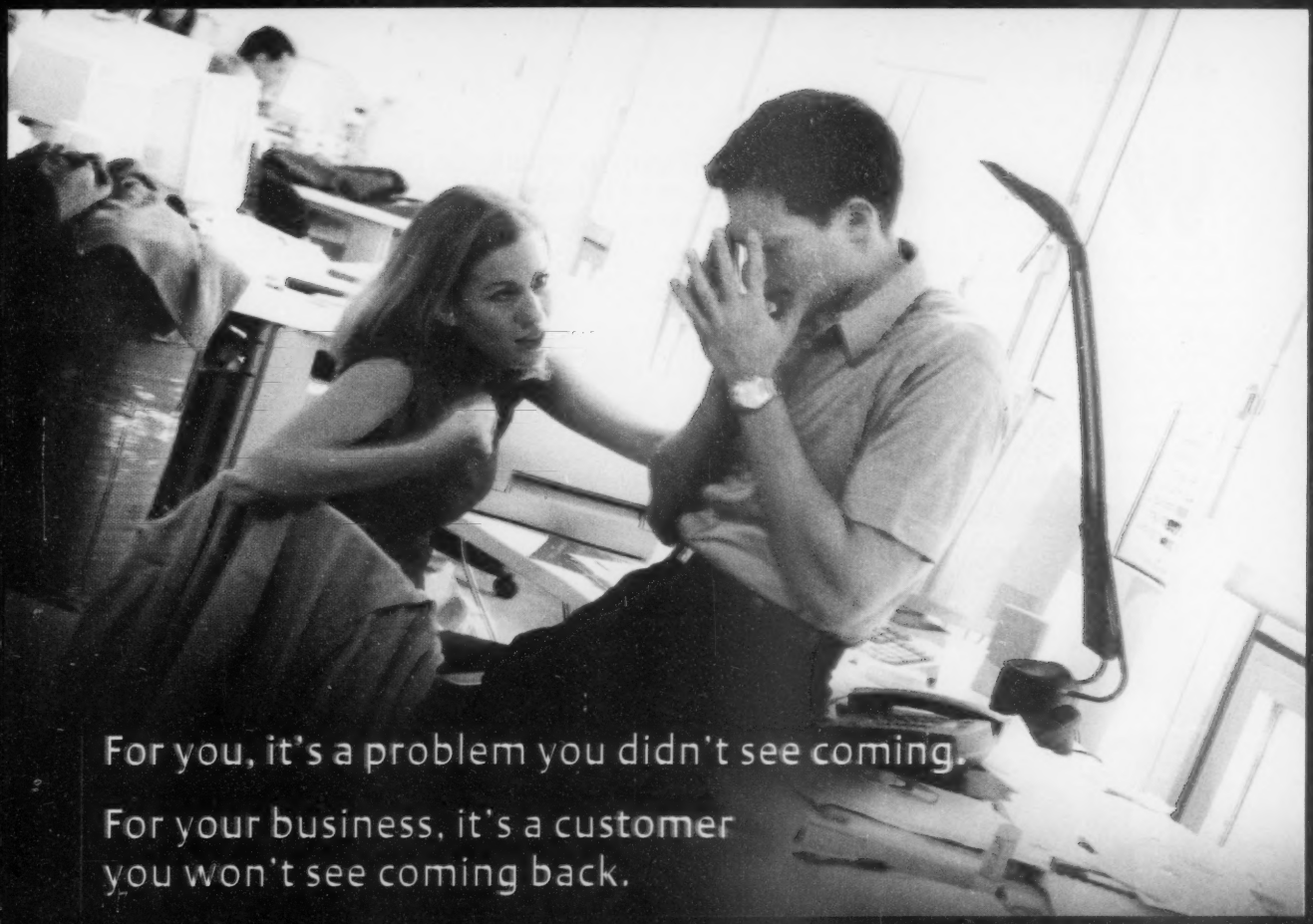
Cost: More than $8 billion
Land: 76 acres on the Las Vegas Strip
Construction workers: 7,000
Buildings: Nine
Square footage: 18 million

HIGHLIGHTS:

- **The Mandarin Oriental**: A 47-story, 400-room hotel with 227 residences.
- **Vdara**: A 57-story tower including about 1,500 condo hotel units.
- **Veer Towers**: Two 37-story glass towers leaning in opposite directions. Each will include approximately 337 loft-like residences.
- **Retail space**: A half-million square feet.

GREEN INITIATIVES:

MGM Mirage is pursuing the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) certification for CityCenter by incorporating a variety of environmentally sensitive components, including the use of reclaimed water and on-site power generation.



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A Help Desk Job

Dead end or launching pad? By Thomas Hoffman

"From my experience, being on an IT help desk has been a huge, huge opportunity."

ANTHONY McCLOUD, HELP DESK TECHNICIAN, MAC EQUIPMENT INC.

WHEN Anthony McCloud graduated from Graceland University in 2000, he didn't have a smidgen of business experience. He didn't know the first thing about business processes, customer service or the quirks and habits of business workers.

Now he knows all that and much more. For the past seven years, McCloud has worked in help-desk-related roles at four companies, including stints at a high-tech equipment maker and a small restaurant chain.

The experience he has gained from learning about different industries and mixing with various types and levels of business workers has been priceless in terms of strengthening his communication and relationship skills, he says.

"From my experience, being on an IT help desk has been a huge, huge opportunity," says McCloud, who was hired by Mac Equipment Inc. in Kansas City, Mo., in June 2007. In addition to his role as the company's lone help desk technician, McCloud has also helped out as a server analyst and has done application development work in SQL, Visual C# and PHP.

As McCloud and others are discovering, many help desks have evolved beyond their ticket-taking roots — offering expanded opportunities for help desk employees. But that doesn't stop some IT professionals from hewing to the old line that a career stop on the help desk is a one-way ticket to Palookaville.

STRATEGIC OR STUCK?

"If you're hired just to work on a help desk, that's all you will ever do," says Fred Wagner, a FileNet and Kofax systems specialist for the city of Long Beach, Calif.

In particular, help desk technicians who work in "stovepiped" IT organizations — that is, companies where systems analysts, network managers and other IT professionals are segregated from one another — can go 15 years without being promoted into positions such as IT infrastructure specialist, business analyst or systems administrator, he says.

A new breed of IT pros begs to differ, maintaining that a job on a help desk can open doors to other IT career opportunities. Help desk technicians, these proponents say, gain valuable experience working with users throughout the enterprise and learning what makes the business tick.

The IT help desk "has

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WHO MAKES WHAT

Average annual salaries of help desk workers in the U.S.:

Call screeners and help desk dispatchers	$31,293
Level 1 support technicians	$37,195
Level 2 support technicians	$45,425
Level 3 support technicians	$55,211
Help desk support managers	$69,382
Director-level help desk supervisors	$95,519

SOURCE: HDI

become the place where you learn about IT," says Rich Hand, executive director of membership at HDI (formerly the Help Desk Institute), a 7,000-member association in Colorado Springs. Help desk professionals "get a feel for what's going on" within the IT organization and often move into other areas such as network operations, says Hand.

"Because it's client-facing, you get a lot of opportunities to develop your people skills and work a lot of different mental muscles," says Patrick Tyrrell, director of IT support and training at the Boston office of Bingham McCutchen LLP, an international law firm.

Tyrrell says nearly everyone he worked with on a help desk at a California-based IT outsourcing provider in the late 1990s has since moved into senior-level IT positions at well-regarded companies.

But that's not the case everywhere. For instance, career options can be limited for help desk technicians who work in monolithic IT organizations, says Paul Myers, an applications development manager at the Kansas Department of Transportation in Topeka.

"I've known a couple of hundred IT help desk support people, and maybe a half-dozen have moved past being a support manager or a support leader. And all of those have done that by learning a new skill and moving to a new company," says Myers.

"If you're a help desk guy, you're a help desk guy, and the only thing you can aspire to is your boss's job," he contends.

Other IT pros disagree. "I never think of the help desk as a dead end," says Ronald Kibbe, assistant director of customer support services for medical center information systems at the Ohio State University Medical Center in Columbus. Working on a help desk, says Kibbe, "can be a career, and it can be a launching pad."

When help desk technicians move up, they generally take on IT roles in systems administration, data center operations and network management, but they aren't necessarily limited to technically oriented pursuits.

For example, help desk technicians with good problem-solving and interpersonal skills, as well as a broad understanding of business operations, can move into business analyst roles, says Ric Mims, executive consultant at Lafayette, Ind.-based SupportCenter Global Technologies Inc., who is also an HDI global faculty member.

When help desk managers move into more senior-level IT infrastructure positions, it's often in areas such as data center operations, desktop support, networking and telecommunications, says Ed Pospesil, chairman of Technology Executives Networking Group LLC in Guilford, Conn.

"I've seen IT executives who have started their careers on a help desk," says Pospesil, who has been a technical and IT executive recruiter for 32 years. "It cuts to their customer service and communications skills. They can follow a number of paths."

IN THE DRIVER'S SEAT

Despite different views about the advisability of starting an IT career on the help desk, most of the IT professionals, managers, consultants and academics interviewed for this story agree that help desk workers are largely responsible for their own career paths.

The greatest opportunity for help desk technicians lies in their ability to learn about different facets of the business, "which makes them more valuable than a pure IT guy," says Robert Rosen, immediate past president of IBM user group Share and CIO at the National Institute of Arthritis and Musculoskeletal and Skin Diseases in Bethesda, Md.

Conversely, "the guys who get stuck [on the help desk] are the ones who are heads-down and just want to fix PCs," he says. "And they wonder why their careers are going nowhere."

Other factors can come into play as well. A dynamic company where people move around a lot is a better bet for advancement than one where people get pigeonholed, for example. And a culture where help desk mavens use sophisticated tools to solve challenging problems will build a résumé faster than one where they primarily reset passwords.

But mostly, career growth for help desk technicians "is very person-dependent," says Rosen. "Some people use it as a launch pad. And other people make it a dead-end job." ■

Higher Callings

IT professionals, or aspiring IT pros, who want to use the help desk as a career launching pad should plan to be in their roles for no more than two years so they don't become typecast or burned out, most experts agree.

"You shouldn't leave anyone on a help desk for more than two years. It isn't beneficial unless they're unmotivated or that's what their career ambition is," says David Lane, an infrastructure architect at a government contractor in the Washington area.

In fact, organizations often use the promise of training and a career path to solve another help desk problem: convincing high-quality workers to take those jobs in the first place.

Despite the opportunities that working on an IT help desk can offer, it can be difficult to persuade recent college graduates to accept entry-level roles there if they have loftier ambitions.

"The kids coming out of these higher institutions are expecting these $70,000 to $80,000 jobs, and it's tough for the employer to say, 'Here's where you start,'" says Neil Hopkins, vice president of skills development at CompTIA.

One way to attract recent graduates with high expectations is to offer entry-level IT workers the training and certifications they'll need to advance in the IT organization, says Hopkins.

"There are a lot of individuals who would be delighted to take on a help desk role if their careers were mapped out for them," he adds.

–THOMAS HOFFMAN

"If you're hired just to work on a help desk, that's all you will ever do.

FRED WAGNER,
SYSTEMS SPECIALIST,
CITY OF LONG BEACH, CALIF.

RED NOSE STUDIO

Revenge OF THE Gamers!

World of Warcraft and other games are honing tomorrow's business leaders.

> **"A lot of people can be leaders when there's an environment that's conducive to making it happen.**

MMORPGs — massively multiplayer online role-playing games — like World of Warcraft, Eve and EverQuest may be the best simulators of tomorrow's business environment. So say **Byron Reeves**, *Thomas W. Malone and Tony O'Driscoll in this month's* Harvard Business Review. *The authors found that these games closely mirror the evolving world of business: distributed decision-making, rapid response, ad hoc teams, and leadership through collaboration rather than authority. Reeves, the Paul C. Edwards Professor of Communication at Stanford University and a co-founder of Seriosity Inc., a company that develops enterprise software inspired by online games, told Kathleen Melymuka that smart companies should be playing.*

Tell me about the Seriosity study commissioned by IBM. They asked us to study collaboration and leadership in these [game] guilds. Moreover, these games are getting popular enough that, even if we don't want to take lessons from them, the people we're hiring are steeped in them, so we need to at least know what's shaping their lives and contributing to their expectations for software when they get to work.

What were some of the study's conclusions? The most interesting one is that leadership in these games has less to do with the special qualities of the person doing the leading than with the environment itself. Tom Malone and I had looked at the leadership literature, and it's very biased toward leadership as a quality of an individual: Leaders are born, and you have to find them and nurture them. Gamers were saying in many ways just the opposite: A lot of people can be leaders when there's an environment that's conducive to making it happen. Maybe they're not the most socially extraverted communicators;

maybe they just know what's going on. A lot of gamers told us, "I could [lead in a game], and it wouldn't happen at IBM."

What can you do with what you learned? A lot of information work is dull and boring, and there are productivity and retention problems that come from that. These games are engaging, compelling and just the opposite. So can we marry the juiciness of these experiences with the productivity needs of business contexts and get people more engaged in their work? A sales team meeting in World of Warcraft is not the first thing that's going to happen. But when you think about it, it's suggestive of how much fun it could be to be a guild in a game with goals and avatars and synthetic currency systems: I'll give you 10 pieces of gold for that PowerPoint I need tomorrow.

How are game players' challenges similar to those of business leaders? Recruiting, evaluating, retaining, persuading, compensating — all those things are really the same. If you're a guild leader, you're looking for new players; you're looking for the best before you "hire" them; you need to figure out what they want and compensate them in the right way to keep them. And "I know we need 30 players on this raid, but [I] have to go put the kids to bed" — how do you deal with that?

And in today's work environments, so much is about persuading people to help you rather than having authority over them. Exactly. Decentralized work really means that coordinating people is much more important than commanding them.

How are the game and business environments different? On the very legitimate issue of the consequences of failure. When something bad happens in a game, you're not taking down millions of people invested in a company. Some of the psychological feelings may be the same, but in terms of the actual stakes, the consequences are broader in business. What would it feel like in World of Warcraft if the future of the company were on the line? It would feel different. But businesses say they don't want the seriousness of the consequences to be handcuffs for innovation and risk taking.

WHY PLAY Games?

Byron Reeves and his co-authors contend that massively multiplayer online role-playing games – MMORPGs – can be useful simulators for modern business training. Here are a few of the reasons:

- **Pace:** Leaders often have to make hundreds of strategic decisions during an hour of game play.
- **Risk:** The relatively mild consequences of failure allow players to test a variety of strategies.
- **Revolving leadership:** The temporary nature of many leadership roles allows people who tend to be real-world followers to try leadership opportunities and those who tend to be real-world leaders to get experience as followers.
- **Scope:** One World of Warcraft game leader, a former U.S. Army officer with a master's degree in human resource management, likened the leadership of an 80-person raiding guild to managing a midsize business.

– Adapted from the Harvard Business Review

And there are other differences. One is the whole notion of transparency. In games, there's a lot more transparency in the culture as well as the rules. You know a lot in the games. You see what gear people have, what level they've achieved, and you know a lot about their status. You're a priest or a dwarf, and people know what you bring. You can make inferences at work, but there's not as much transparency of expertise. There are laws about transparency in business — privacy rights.

You note certain distinctive characteristics of leadership in online games that point toward skills tomorrow's leaders will need. Can we discuss speed? Certainly, things can happen more quickly in games. In a game, you might congregate with five people you've just met; you've got one minute to decide who will lead and what the strategy will be, and then the gate opens. So there's a lot more opportunity to do things quickly.

Iteration is an important part of this. In business, we're not going to go to Step 2 until we know we won't fail on Step 5. The default strategy in games is, "That's a good idea; let's try that." Then, wham! "All right, we all die. Let's go left instead of right next time." There's a lot of opportunity to try things a lot of times, and there's value in that: A lot of small failures add up to global success rather than being so careful about each step.

Are gamers less risk-averse in business? Tony O'Driscoll has studied several hundred gamers at IBM. It occurs to a majority of them that things happening in these games are similar to and different from real work and useful to think about in real work. People volunteer that they have made that connection.

Tell me about the honesty that the use of avatars engenders. In games, they are signals of your role and expertise. In respect to representing expertise, the games keep you honest in ways real life doesn't. You can't say you are a Level 50 when you're only 40, whereas you can probably do that at work, where expertise is more objective. That's one reason people like these games: because they're fair. It's not about who you know and how well you do in the hallway conversation; it's what level you've achieved.

Finally, you note that leadership roles are often temporary in games. To some extent, people with competence rise to the top, but there is a lot of temporary leadership: I've been in this dungeon, so I'll just take over. A corollary is that leaders get experience being followers and that's useful also, because people who know a lot are being directed by people who know less, but for whatever reason, it's their turn to take over.

Getting back to the conclusion that the right environment may matter more than the right leader – how can companies benefit from that insight? Build better environments, and leadership will emerge. There's a real interest in analytics in business now. You can have a lot of data about how things are going. Dashboard and analytics is a good example. They provide a leader board and a score card like games have, and they're right up there for everybody to see. It's very gamelike. ■

Pay As You Go

A construction firm busts through piles of invoices with pro forma statements issued once a month. By Gary Anthes

100 PREMIER IT LEADERS 2008 — BEST IN CLASS
This story is one in a series showcasing the best projects of this year's Premier 100 IT Leaders.

Tridel Corp.

Located in Toronto, this company specializes in condominium construction, sales and property management. It has annual sales of $700 million (Canadian).

IT CHAMPION: Ted Maulucci, CIO

IT STAFF: 22

PROJECT PAYBACK: It has reduced annual invoicing costs by $581,000 so far.

When an IT professional hits a home run, sometimes it's the magic of technology that's behind it. But sometimes it's the sheer brilliance of an idea. Tridel Corp.'s Zero Invoice project is an example of the latter.

The concept was simple enough: Rather than process and pay invoices as they come in, just pay suppliers what records show is owed to them at the end of the month. In a major test of the system, Tridel reduced the monthly volume of invoices from 2,400 to just 17 — saving $21,000 in processing costs — and sharply cut the number of disputes and overpayments. CIO Ted Maulucci calls the results "pretty dramatic."

When Tridel sells a condominium, the buyer often selects upgrades, such as better appliances or an optional hardwood floor. Some of these items have standard prices, and some are custom-priced at the time of sale, which can occur as much as three years before the buyer moves in. Meanwhile, Maulucci says, the suppliers that will ultimately bill Tridel for the upgrades, and whose own systems tend to be rudimentary, can lose track of what they agreed to bill.

Before Zero Invoice, suppliers would send bills to Tridel every day — some 65,000 annually — as soon as a piece of work was completed. Then a Tridel project manager would have to match the invoice with his own records of what charges had been agreed to months earlier. Discrepancies occurred often and were very labor-intensive to resolve. "And when an invoice comes in at the wrong amount, you don't always win," Maulucci says.

Now, Tridel simply aggregates each supplier's charges, based on its record of what was done during the month, and issues a single pro forma invoice for the supplier to sign off on at the end of the month.

"When I tell people about Zero Invoice, they say, 'Don't your [suppliers] hate that?' But it was the complete opposite," Maulucci says. "The [suppliers] don't have the systems we do. They say, 'I like it. It's easy for me.' There's a trust level. They are getting paid faster, and it's easier for them to administer."

Line managers at Tridel like it too. Kevin McKeown, a construction project manager, says Zero Invoice has reduced the time he spends matching invoices with purchase agreements and verifying prices, from one to two hours per day during the last two weeks of the month to just one to two hours per month.

"It's a great tool, and it's helped me a lot," he says.

The "tool" consists of modifications and enhancements to Tridel's commercial accounting package, custom-coded using Microsoft Corp.'s .Net Framework. "From a systems point of view, this was not super challenging. It's mostly slogging it out and keeping it simple," Maulucci notes.

He says he got the idea from similar programs in the manufacturing sector and from a home builders conference two years ago. Another visionary at Tridel seized on it right away, but Maulucci acknowledges that some of the old guard were skeptical and remain so. "Getting an organization to change this dramatically is tough," he says. "It's such a fundamental shift."

"Ted Maulucci has proven to be a real IT innovator in the industry," says Howard Berger, a managing partner at Realcomm Conference Group LLC in Carlsbad, Calif. "He really rethought the process, and it seems to work. I think it will be a beacon for other companies." ■

"The [suppliers] don't have the systems we do. They say, 'I like it. It's easy for me.' There's a trust level. They are getting paid faster, and it's easier for them to administer."
TED MAULUCCI, CIO, TRIDEL CORP.

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All Popular Endpoint OSs Supported	Yes	Blind	Blind	Huh?	Blind
Number of Administrators Required	1	Dozens	Dozens	Dozens	Dozens
Number of Servers Needed	1	Acres	Acres	Acres	Acres
Number of Agents/Consoles/Toolsets	1	Lots	Lots	Lots	Lots
Time to Implement	1 Day	Months	Months	Months	Months
Total Cost of Ownership	Lowest	Your Job	Your Marriage	Your Sanity	Your Career

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TRBA

Getting the Best From an Audit

Don't fear the audit. **Learn from it.** The important thing is that systems should be **more secure** in the end.

Trouble Ticket

AT ISSUE: It's time for an independent audit.

ACTION PLAN: Use this quantitative analysis of the environment to reiterate the things that were previously ignored.

An independent information security audit can be nerve-wracking, but this time, I actually enjoyed it. I guess it's just a matter of perspective.

It might help that I've been an auditor myself, and so I knew what the auditor was looking for and what he would put into his report. But that isn't the whole story.

A bigger factor was that this time around, I was prepared. And I've come to see the audit not as a reproach to my work but as a quantitative affirmation of all the things I've been saying we need to do to keep our data safe.

Of course, even quantitative results can be misleading, misguided or misconstrued, depending on the expertise of the auditor. And quite often, what most people will look at is the executive summary. In our case, that was a few pages, backed up by a 700-page technical report. Guess which one of those the higher-ups in state government are going to look at?

The problem is that this executive summary, like most of them, is filled with charts and graphs that grossly overstate our security problems. Not that we don't have problems. We do, and I'm glad to have them out in the open.

In our report, what those charts and graphs showed were the number of high-, medium- and low-risk vulnerabilities and their levels of exploitability. The sheer volume of potential problems could overwhelm the uninitiated.

I need to formulate a response to this, so that as this audit report goes up through the chain of command, those who read only the executive summary will have my comments to refer to. This will be a tough document to craft, because my purpose is to show how the executive summary exaggerates and distorts the actual situation, but I don't want to sound defensive or oblivious to what are real shortcomings.

■ Of course, even quantitative results can be misleading, misguided or misconstrued, depending on the auditor's expertise.

MEGO GALORE

As for that 700-page technical report, even I could only scan it before I came down with a serious case of MEGO (my eyes glaze over). What I got out of it was that all of the high-risk vulnerabilities are related to our application development environment. And many of these high-risk vulnerabilities would require very little skill to cause serious harm.

This wasn't a big shock. I knew that application development was a problem. But the report was an opportunity to do something about it.

The basic weakness is that developers and programmers often have unpatched systems or have configured their systems so that the application they are working on will work the way they want it to. They give no thought to security matters, as you might well expect.

My idea was to ask the auditor to help me develop documentation and processes for the agency that would ensure a formalized system-development life cycle. The new process addresses the security concerns raised by the report.

As a result, we now have a suitable framework with which we can begin doing things differently. At the same time, we moved the application development team to a separate network segment, off of the production network. That should make it less alarming if the application development systems aren't completely up to date.

There is more work to do in the aftermath of this audit, but we've made big progress. Best of all, the positive outcome is something I wouldn't have thought of without the audit.

So, here's a bit of advice: If you are a security manager, welcome your next audit with open arms. The burdens of playing bad cop all the time and being ignored will be off your shoulders. Let the audit speak for itself — in all its quantitative glory. ■

This week's journal is written by a real security manager, **"C.J. Kelly,"** *whose name and employer have been disguised for obvious reasons. Contact her at mscjkelly@yahoo.com.*

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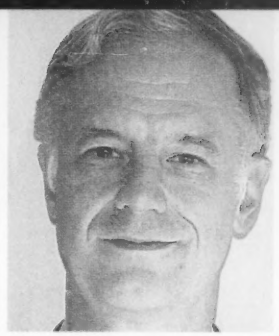
Bart Perkins

State Your Purpose



A GOOD MISSION STATEMENT is a brief, powerful description of an organization's purpose. Unfortunately, most corporate and IT mission statements are boring and forgettable expressions of motherhood and apple pie. Many are so vague and generalized that they could be used for almost any corporate entity. Others are just uninspiring collections of buzzwords.

Here are some of the things effective mission statements should do:

Send a message clearly and concisely. They should be short enough to remember, without sacrificing the substance of the message. Google's powerful mission is only nine words: "To facilitate access to information for the entire world." Long, detailed statements leave the reader overwhelmed. Barnes & Noble's mission statement is nearly two-thirds the length of the Gettysburg Address — and far less memorable.

Inspire. A good mission should be a rallying cry for the organization. President Kennedy established the entire space program with one sentence: "This nation should commit itself to achieving the goal, before this decade is out, of landing a man on the Moon and returning him safely to Earth." NASA adopted this as its mission statement for the Apollo project.

Drive transformation. An organization in the midst of change can use a new mission statement to communicate its future directions. One retailer's IT mission, "Deliver IT services globally," seems superficial, but it succinctly describes the essence of the company's transformation. The word "deliver" acknowledges its move from in-house development and operations to selectively outsourcing IT functions. "IT services" indicates its migration from custom applications to using packaged applications and the software-as-a-service model. "Globally" recognizes the required shift in its customer base, from domestic to worldwide.

Differentiate your market position. Good mission statements should also differentiate the organization from its competitors. CVS states: "We will be the easiest pharmacy retailer for customers to use." In a market threatened by giants like Wal-Mart and Costco, "easiest" reflects CVS's choice to focus on service, not price.

■ A good mission statement becomes a rallying cry for the organization.

Pull the corporation into the future. In 1985, *Computerworld* reported that Bill Gates' vision was "to get a workstation running our software onto every desk and eventually in every home." At that point in history, that declaration was often perceived as brash and audacious, but it turned out to be an excellent (and prophetic) mission statement for the fledgling company.

Enable trade-offs. Good mission statements should help establish priorities. In 1980, Scandinavian Airlines (SAS) was hemorrhaging money. It created a new mission, "To become the best airline in the world for the frequent business traveler." Processes were eliminated (including the tourist travel department), unless they directly supported business travelers. SAS determined that business travelers wanted multiple choices of flights. Other airlines converted to larger, more fuel-efficient Airbus planes, forcing a reduction in the number of flights they could offer, but SAS maintained its full schedule by continuing to use smaller DC-9s. In 1983, SAS was named "Airline of the Year," *Fortune* magazine declared it the "best airline for business travelers," and it became highly profitable.

Guide daily behavior. A mission statement should help direct the way employees operate. Ritz-Carlton's goal of providing "extraordinary customer service" empowers frontline employees to solve most customer problems without seeking supervisor approval. Its consistent focus on customer service has won Ritz-Carlton the coveted Malcolm Baldridge National Quality Award twice.

A good mission statement helps create a compelling vision of the future for an organization. Use it to enhance your organization's effectiveness by providing clarity of purpose, inspiration and motivation, as well as a vehicle for enabling transformation. ■

Bart Perkins *is managing partner at Louisville, Ky.-based Leverage partners Inc., which helps organizations invest well in IT. Contact him at BartPerkins@LeveragePartners.com.*

Career Watch

Q&A

Sandee Kastrul

The **president** and founder of **I.C.Stars** talks about its **IT leadership initiatives.**

Tell me about I.C.Stars. It's a nonprofit organization that was founded in 1999 for the purpose of developing 1,000 community leaders by 2020. Through training in technology, leadership and business skills, I.C.Stars prepares inner-city young people for high-level careers in IT. We do this through a project-based training model, through opportunities to meet IT leaders and potential employers, and through leadership training.

You had over 150 CIOs at last summer's iOpener event. What were some of the ideas for addressing the current IT talent shortfall? A byproduct of the 2001 technology crash and resulting mass layoffs was discouragement for young people to explore careers in IT. Our iOpener event, which drew more than 150 CIOs from across the U.S., was designed to start reversing this trend and help schools to fill the talent supply chain at the high school level and to change perceptions about IT as a dead-end career path.

We now face a talent shortage in IT that reaches throughout the entire supply chain – from senior leaders to middle management and down to entry-level roles. We are busting the stereotype that the only future for IT is through offshore or outsourced talent. Our CIO leaders are telling us loudly that they have a need for good IT talent here in the U.S. too.

What will I.C.Stars be doing differently as a result of that conversation? We're growing the number of students in our program by 70% this year, in response to the market demand. Also, our curriculum will add a business analyst track to have our students compete against each other for an RFP working on an SAP module implementation. This is not about coding but doing the business analysis. And it may be unusual for entry-level IT staffers to be exposed to this type of business case validation; we believe it is a sign of the times. It is something we are seeing our program sponsors support.

– JAMIE ECKLE

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{GO TO BED!}

Dying to crawl under the desk for a few winks at work? Falling asleep during conference calls? You're not alone. In a poll of 1,000 randomly chosen Americans last fall, the National Sleep Foundation found that Americans are working more and sleeping less – and it's taking a toll.

THE BAD NEWS

29% said they fell asleep at work or nearly did in the previous month.

36% said they nodded off while driving.

27% said they frequently find it difficult to concentrate at work.

20% said they are frequently less productive than they expect.

THE GOOD NEWS

34% said their workplace permits napping during breaks.

THE WORKDAY

25% work 8 to 9 hours a day.

25% work 9 to 10 hours a day.

33% work 10 hours or more a day.

Incentives for Health

While some employers are using a stick to keep health benefit costs down (such as making smokers pay larger premiums), others are holding out carrots: They're altering their benefit enrollment systems to encourage employees to adopt healthier behaviors, according to a survey by consulting firm Watson Wyatt Worldwide Inc.

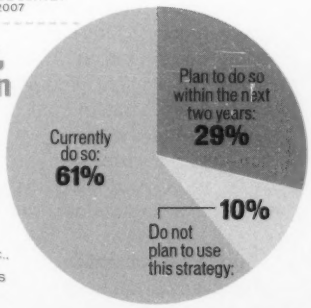
PROGRAM OR ACTIVITY	INCORPORATED IN ENROLLMENT PROCESS*	CONSIDERING FOR FUTURE
Health risk assessment	53%	32%
Disease management	36%	32%
Addressing tobacco use	29%	30%
Organizing on-site health screenings	26%	32%
Surcharge if spouses have access to other coverage	20%	21%
Promoting exercise or fitness center use	16%	32%
Weight or body mass index management	14%	36%

*Now or planned for 2009

SOURCE: WATSON WYATT WORLDWIDE SURVEY OF 117 U.S. COMPANIES, DECEMBER 2007

Larger Company, Better Prevention

Does your company currently promote preventive health benefits and behaviors, or plan to do so within the next two years?



SOURCE: FORRESTER RESEARCH INC., 2007 BENEFIT DECISIONS' IMPACT STUDY, FEBRUARY 2008; RESPONSES FROM 910 BENEFIT EXECUTIVES

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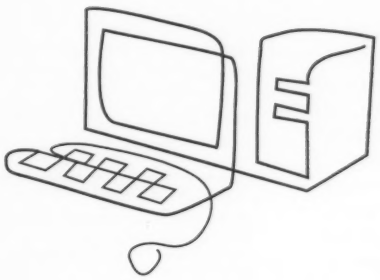

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Shark Tank

TRUE TALES OF IT LIFE AS TOLD TO SHARKY

A Little Too Agile

IT pilot fish is testing a new Web site built using an agile methodology, and he's not impressed. "I wanted to test a new feature added to the 'user profile' section," he says. "We had cleverly designed the user profile page to be password-protected, using the same password used to get into the site. But my password wouldn't work. The system gave me an error saying I couldn't use anything but alphanumeric characters, and my password contained an underscore. But I was allowed to create a password initially *with* an underscore! Apparently, our teams didn't design any standard requirements for passwords – they just built one password test to create your account and a different password test for the user profile page. And I couldn't change my password, because the page that would allow me to change my password didn't accept the password that the Web site had already allowed me to create."

Well, Yes

It's near the end of a months-long user-acceptance test for a very big customer of this financial software vendor, when this pilot fish gets a call one afternoon saying the system is failing and no one can access the application. First question to customer: "What did you change?" Customer's immediate response: We didn't touch anything. But after a day of digging, fish has a clearer answer: They touched something. "Their database admin had removed all the database permissions for the log-in being used for the application," groans fish. "He thought the log-in had too many permissions, and he didn't like it. When asked what permissions he did grant the log-in, his reply was, 'None. Will that cause a problem?' "

Broken, Redefined

First assignment for this newly hired pilot fish: Design a database application. But she's not allowed to create any tables or keys, only submit the design to a database admin. DBA accepts fish's tables but rejects her proposed indexes – and the resulting performance is miserable, but DBA refuses to budge. So when the DBA goes on vacation a few months later, fish asks his temporary replacement for a new index on the test system. It tests fine, so it's moved to the live database. "The users immediately contact me," fish says. "They think the application must be broken because what used to take several minutes to run now takes seconds. I ask if they're getting the correct response. Yes, they say, but it's happening too fast to be doing the job. I explain what happened, and they're all happy."

■ *You can make Sharky happy by sending me your true tale of IT life at sharky@computerworld.com. I'll return the favor with a snazzy Shark shirt if I use it.*

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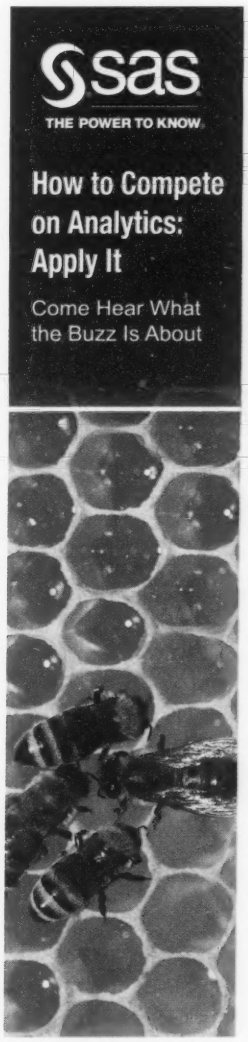

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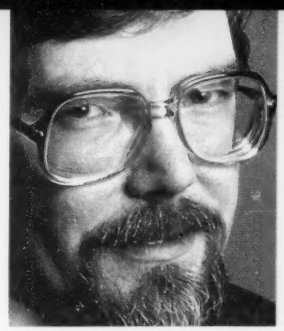
■ FRANKLY SPEAKING

Frank Hayes

Stunt IT



AT PURDUE UNIVERSITY last week, the IT staff built a supercomputer. A world-class supercomputer. Out of PCs. Using just local IT talent. (OK, a team from Indiana University also helped.) And it was done in less than a day.

A stunt? Certainly. A real IT project? Yes, just as certainly.

In fact, it was the epitome of a real IT project. It was funded by the departments that will use the machine. It was designed so the right technology can solve problems, and planned so that it would come together cleanly and effectively. And it went operational on budget and ahead of schedule.

How many of *your* real IT projects can make all those claims?

Of course, it was also a stunt. The new supercomputer was given a catchy name, "Steele" (after retired Purdue computer center director John Steele). The project was announced with a YouTube video made to look like a movie preview. More than 800 off-the-shelf commercial PCs were delivered, unboxed and rack-mounted all at once, just to show it could be done.

And it was assembled and working in one day. That wasn't just because it made a better stunt. The school's three existing scientific-computing clusters had been taken offline five days earlier, and academic researchers needed the hardware up and running fast.

When was the last time you did something like that? Something splashy and flashy, something to make users say, "Wow, this is really great stuff"?

It's a good idea, doing a stunt now and then to show off. It's good for morale and for IT's reputation in your company.

But you wouldn't want to do it with every rollout. Or even with every major rollout.

■ When was the last time you did something splashy and flashy, something to make users say, 'Wow, this is really great stuff?'

See, a stunt has to work. It's intentionally high-profile. The point is to have everyone watching as you look good doing what you do. You really can't afford to fail.

That means the flashy stunt rollout has to be planned with extraordinary care and executed with extraordinary discipline. Everyone has to know *exactly* what's supposed to happen. Each IT person — there were more than 200 involved in the Purdue rollout — has to know his task and be prepared for whatever might go awry.

And as with any good magic trick, everything has to be prepared in advance to minimize failure. That requires lots of advance testing, well-practiced hardware configuration and bulletproof software installation. Everything that can be done before zero hour should be done.

So, no half-baked plans, no seat-of-the-pants navigation, no individuals doing it their own way — just a smoothly executed delivery that makes users happy and makes your IT staffers look brilliant.

And there's one other advantage: Stunt IT is fun. For most of the IT staffers involved, it's a burst of hard work followed by an enormous feeling of accomplishment and plenty of admiration from the rest of the organization.

There's really just one downside. No, not the chance of failure — with the right preparation, you can do this.

The downside is that once users see your IT shop deliver a crisp, disciplined, well-planned and well-prepared rollout, they'll expect that level of quality from IT all the time.

Then again, if you have the skills and discipline necessary for stunt IT, you should be able to apply them to all your other projects. They might not be flashy and splashy, but they'd be the sharp, effective, real IT work your business needs.

That really would be some stunt. ■

Frank Hayes *is* Computerworld*'s senior news columnist. Contact him at frank_hayes@computerworld.com.*

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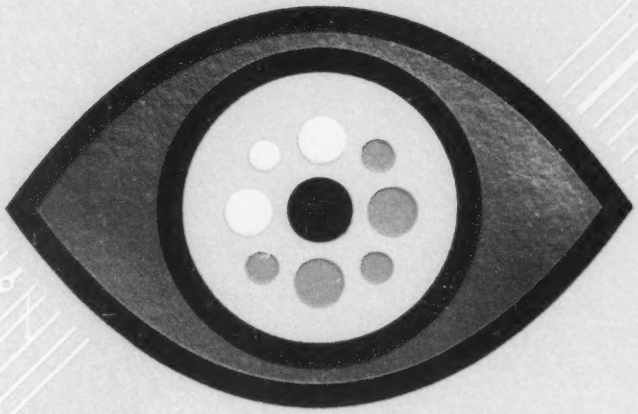

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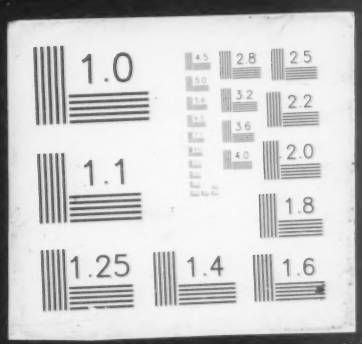
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